

This listing of claims will replace all prior versions, and listing, of claims in the application:

**Listing of Claims:**

1. (currently amended) A speech encoder, comprising:
  - (a) a linear prediction, pitch, and , voicing analyzer;
  - (b) a waveform coder coupled to said analyzer, with LP coefficients updated within a sub-frame for excitation synthesis for eliminating switching artifacts.
2. (currently amended) The speech encoder of claim 1, wherein:
  - (a) the length of said sub-frame is ~~has a length equal to~~ an integer multiple of a length of an interval of said LP coefficients ~~update~~.
3. (previously added) The speech encoder of claim 2, wherein:
  - (a) said sub-frame has a length of 80 samples; and
  - (b) said LP coefficient updated interval is 20 samples.
4. (currently amended) A method of speech encoding, comprising the steps of:
  - (a) providing waveform excitation sub-frames;
  - (b) providing a plurality of sets of LP coefficients<sub>s</sub> for each of said sub-frames<sub>s</sub> for a waveform coder coupled to an analyzer; and
  - (c) finding waveform excitations for said sub-frames using said sets of LP coefficients.
5. (previously added) The method of claim 4, wherein:

- (a) said sub-frames have length 80 samples; and
  - (b) said sets of LP coefficients apply to intervals of length 20 samples.
6. (new) A linear predictive speech coding system, comprising:
- (a) a classification of frames and a hybrid coder using both waveform coding and parametric coding for different classes of frames;
  - (b) a phase alignment for a parametric coder aligns synthesized speech frames with adjacent waveform coder synthesized frames;
  - (c) a zero phase alignment of speech prior to waveform coding aligns synthesized speech frames of a waveform coder with frames synthesized with a parametric coder; and
  - (d) an inter-frame interpolation of LP coefficients suppresses artifacts in resultant synthesized speech frames.